

1400 South 19th Avenue Bozeman, MT 59718

October 4, 2017

Dear Interested Party:

Montana Fish Wildlife and Parks (FWP) is proposing to acquire two mining water rights and apply to the Department of Natural Resources and Conservation to permanently change the water rights to instream flow to benefit the fishery. One water right is from Bear Creek, a tributary to the Yellowstone River near Gardiner and the other water right is from Pine Creek, a tributary to Bear Creek near Jardine.

Acquiring the water rights and changing them to instream flow would protect the flow in ¼ mile of Pine Creek and 3¾ miles of Bear Creek. The flows were historically reduced due to diversion pursuant to historic water rights. The project is expected to benefit the fishery of Bear Creek and the Yellowstone River. Like other tributaries of the upper Yellowstone River, Bear Creek provides important spawning and rearing habitat for Yellowstone cutthroat trout and rainbow trout migrating from the Yellowstone River. Further, Bear Creek is a source of cool water that helps moderate elevated water temperatures in the Yellowstone River.

This EA is available for review in Helena at FWP's Headquarters, the State Library, and the Environmental Quality Council. It also may be obtained from FWP at the address provided above, or viewed on FWP's internet website: http://www.fwp.mt.gov.

Montana Fish, Wildlife & Parks invites you to comment on the attached proposal. Public comment will be accepted until November 3, 2017 @ 5:00 pm. Comments should be sent to the following:

Montana Fish, Wildlife & Parks Attn: Andy Brummond PO Box 938 Lewistown, MT 59457

Or e-mailed to: abrummond@mt.gov

Sincerely,

Acting Region Three Supervisor

Draft Environmental Assessment

Bear and Pine Creek Water Right Acquisition and Permanent Conversion to Instream Flow

October 2017



Draft Environmental Assessment MEPA, NEPA, MCA 23-1-110 CHECKLIST

PART I. PROPOSED ACTION DESCRIPTION

- 1. Type of proposed state action: Montana Fish, Wildlife & Parks (FWP) proposes to acquire two mining water rights and permanently change the water rights to instream flow to benefit the fishery. One water right is from Bear Creek, a tributary to the Yellowstone River near Gardiner, Montana and the other water right is from Pine Creek, a tributary to Bear Creek near Jardine, Montana.
- 2. Agency authority for the proposed action: FWP has statutory authority to acquire water rights (§87-1-209 MCA) and the authority to permanently change water rights to instream flow (§85-2-436 MCA).
- 3. Anticipated Schedule:

Estimated Commencement Date: The water right acquisition will likely occur in December of 2017 upon the approval of the Fish & Wildlife Commission. An application to Montana Department of Natural Resources and Conservation (DNRC) for the permanent change to instream flow will follow within a few months.

Estimated Completion Date: The completion date depends on the timeframe for the change of the water rights to instream flow. The earliest foreseeable completion date is fall of 2018.

Current Status of Project Design (% complete): 0%

- 4. Location affected by proposed action (county, range and township included map): Park County, Township 9 South, Range 9 East A map is attached.
- 5. Project size -- estimate the number of acres that would be directly affected that are currently:

·	Acres		Acres
(a) Developed:		(d) Floodplain	0
Residential	0		
Industrial	0	(e) Productive:	
(existing shop area)		Irrigated cropland	0
(b) Open Space/	0	Dry cropland	0
Woodlands/Recreation		Forestry	0
(c) Wetlands/Riparian	0	Rangeland	0
Areas		Other	0

6. Permits, Funding & Overlapping Jurisdiction.

(a) Permits:

Agency Name Permits

Montana Dept. of Natural Resources and Conservation (DNRC)

Authorization to Change a Water Right

(b) Funding:

Agency Name Funding Amount
FWP-Fishing License Fees \$800

(c) Other Overlapping or Additional Jurisdictional Responsibilities:

Agency Name Type of Responsibility
None

7. Narrative summary of the proposed action: The project being considered is for FWP to accept the donation of two mining water rights owned by Trout Unlimited and apply to DNRC to permanently change them to instream flow in Bear Creek, a tributary to the Yellowstone River near Gardiner and in Pine Creek, a tributary to Bear Creek near Jardine. While DNRC is the decision-maker with respect to the permanent change to instream flow, this Environmental Assessment includes an evaluation of the impacts of the permanent change to instream flow as that is FWP's objective. The water rights involved are as follows:

Water Right No.	Source	Maximum Flow Rate	Annual Volume
43B 194641-00	Bear Creek	22.5 cuft./sec.	8165.0 acre-feet
43B 134019-00	Pine Creek	2.5 cuft./sec.	907.22 acre-feet

Under the terms of a settlement agreement during the adjudication of the two water rights the following limitations apply to the use of the water rights:

- -The Pine Creek right is used to the maximum extent practicable before the Bear Creek right is used.
- -During the months of December through March, use of the Bear Creek right is limited to 0.65 cubic feet per second (cfs).
- -During the months of April through November, the Bear Creek right may be used up to 4.0 cfs without limitation. Above 4.0 cfs, no more than 50% for the streamflow in Bear Creek can be diverted up to a maximum total diversion for the Bear Creek right of 22.5 cfs.

The water rights were historically used for mining and ore processing operations as well as electric power generation for the operations. Most recently the water rights have been used for reclamation of the mine site. Changing the water rights to instream flow would protect the flow in the ½ mile of Pine Creek and 3¾ miles of Bear Creek where flow was

historically reduced due to diversion pursuant to the water rights. Additionally, above the historic points of diversion, the amount of water historically diverted can be protected in the streams against diversion by upstream junior water rights.

The permenant change to instream flow is expected to benefit the fishery of Bear Creek and the Yellowstone River. Like other tributaries of the upper Yellowstone River, Bear Creek provides important spawning and rearing habitat for Yellowstone cutthroat trout and rainbow trout migrating from the Yellowstone River. Further, Bear Creek is a source of cool water that helps moderate elevated water temperatures in the Yellowstone River. It is anticipated that the project will not involve any physical disturbance of the land.

To permanently change the water rights to instream flow, FWP must file an application and receive authorization from the DNRC. This process will include a public notice period during which other parties may object to the permenant change to instream flow.

At present, there is no mining occurring in the area historically mined. Mining ceased in 1996 and the mine site has since been reclaimed. The ditch leading to the hydropower plant and headrace pond still exists but the penstocks, turbines, generators and the powerhouse have been removed. Because there is no current mining activity and the mine site has been reclaimed, for the purposes of evaluating the impacts of the proposed action, the existing conditions are generally considered to be those currently present, with the mine being reclaimed. However, because the water rights involved represent legal rights to use the water as it was in the past, the current conditions with respect to water and associated resources will consider the water being diverted as it was in the past up to the amounts allowed under the two water rights.

9. Description and analysis of reasonable alternatives:

Alternative A: No Action

FWP would not acquire the water rights and permanently change them to instream flow. The permanent benefits would be forgone as FWP is the only entity in Montana authorized to permanently change water rights to instream flow. It is also possible that if FWP does not accept the water right donation, they could be changed to a different use that would result in an ongoing depletion of flow in Bear and Pine Creeks.

<u>Alternative B:</u> Proposed Action – Acquire Water Rights and Permanent Change to Instream Flow

FWP proposes to accept the donation of the water rights and permanently change them to instream flow to benefit the fishery of Bear Creek and the Yellowstone River.

Alternative C: Water Right Lease and Temporary Change to Instream Flow FWP could lease the water rights and temporarily change them to instream flow for a term of up to 10 years. The impacts would be the same as those for the

proposed action except that the duration of the impacts would be temporary in nature as limited by the term of the water right lease. However, this alternative would not meet the water right owner's objective of a permanent change to instream flow and would not guarantee the perpetual protection of the water instream for the benefit of the fishery.

10. Evaluation and listing of mitigation, stipulation, or other control measures enforceable by the agency or another government agency:

§85-2-436 MCA, under which FWP has the authority to permanently change water rights to instream flow, also requires a flow monitoring plan that will be a condition of the authorization to change the water rights. This flow monitoring plan along with any limitations imposed by the water right change authorization are enforceable by DNRC.

PART II. ENVIRONMENTAL REVIEW CHECKLIST

Evaluation of the impacts of the <u>Proposed Action</u> including secondary and cumulative impacts on the Physical and Human Environment.

A. PHYSICAL ENVIRONMENT

1. LAND RESOURCES	IMPACT							
Will the proposed action result in:	Unknown	None	Minor	Potentially Significant	Can Impact Be Mitigated	Comment Index		
a. Soil instability or changes in geologic substructure?		x						
b. Disruption, displacement, erosion, compaction, moisture loss, or over-covering of soil, which would reduce productivity or fertility?		х						
c. Destruction, covering or modification of any unique geologic or physical features?		x	2.33					
d. Changes in siltation, deposition or erosion patterns that may modify the channel of a river or stream or the bed or shore of a lake?		x						
e. Exposure of people or property to earthquakes, landslides, ground failure, or other natural hazard?		X						

2. AIR	IMPACT *							
Will the proposed action result in:	Unknown	None	Minor	Potentially Significant	Can Impact Be Mitigated	Comment Index		
a. Emission of air pollutants or deterioration of ambient air quality? (Also see 13 (c).)		x						
b. Creation of objectionable odors?		X						
c. Alteration of air movement, moisture, or temperature patterns or any change in climate, either locally or regionally?		x						
d. Adverse effects on vegetation, including crops, due to increased emissions of pollutants?		x						
e. For P-R/D-J projects, will the project result in any discharge, which will conflict with federal or state air quality regulations? (Also see 2a.)		x						

3. WATER				IMPACT		
Will the proposed action result in:	Unknown	None	Minor	Potentially Significant	Can Impact Be Mitigated	Comment Index
Discharge into surface water or any alteration of surface water quality including but not limited to temperature, dissolved oxygen or turbidity?			х			3.a
b. Changes in drainage patterns or the rate and amount of surface runoff?		x				
c. Alteration of the course or magnitude of floodwater or other flows?			x			3.c
d. Changes in the amount of surface water in any water body or creation of a new water body?			х			3.d
e. Exposure of people or property to water related hazards such as flooding?		X				S00-04 - 41 - 410
f. Changes in the quality of groundwater?		X				
g. Changes in the quantity of groundwater?		X				
h. Increase in risk of contamination of surface or groundwater?		X				
i. Effects on any existing water right or reservation?			X			3.i
j. Effects on other water users as a result of any alteration in surface or groundwater quality?		X				31.
k. Effects on other users as a result of any alteration in surface or groundwater quantity?		x				
For P-R/D-J, will the project affect a designated floodplain? (Also see 3c.)		X				
m. For P-R/D-J, will the project result in any discharge that will affect federal or state water quality regulations? (Also see 3a.)		X				

- 3.a Due to improved and more natural flow through the restoration reach and the lack of diversion into the hydropower supply ditch, water temperatures are expected to be closer to the natural temperature regime throughout Bear Creek and Pine Creek below the historic points of diversion with summer water temperatures in particular expected to be lower.
- 3.c Peak flow in Pine and Bear Creeks will more closely match natural conditions under the proposed change to instream flow. The 2.5 cfs diversion from Pine Creek represents 10% of the estimated 1.5-year return interval peak flow of 25.9 cfs and 3% of the estimated 10-year return interval peak flow of 88.6 cfs. The 22.5 cfs diversion from Big Creek represents 11% of the estimated 1.5-year return interval peak flow of 207 cfs and 4% of the estimated 10-year return interval peak flow of 574 cfs.
- 3.d Streamflow in Pine and Bear Creeks will more closely match natural conditions under the proposed change to instream flow. Table 1 compares the estimated mean monthly stream flow to the allowable diversion under the terms of the water right settlement agreement. The estimated flow for Pine Creek at the historic point of diversion was obtained from the USGS Streamstats website. Two estimates for flow in Bear Creek were obtained. One from the USGS Streamstats website for the location of the tailrace of the powerhouse and the other from Stream Flow Characteristics of Mountain Streams in the Upper Yellowstone River basin in Montana, USGS/DNRC 1979. When compared to conditions under maximum allowable diversions, Bear Creek will see substantial increases in flow outside of the December through March period when diversion was limited to 0.65 cfs from Bear Creek.

Pine Cree	k			Bear Cree	ek					
Mean Flow est. (cfs) USGS Streamstats	Max. Diversion (cfs)	Remaining Flow (cfs)	Month	Mean Flow est. (cfs) USGS Streamstats	Max. Diversion (cfs)	Remaining Flow (cfs)	Mean Flow est. (cfs) USGS/DNRC 1985	Max. Diversion (cfs)		FWP Bear Creek Instream Flow
1.99	1.99	0.00	October	17.1	10.55	6.55	25.0	14.50	10.50	18.1
1.40	1.40	0.00	November	13.7	8.85	4.85	16.0	10.00	6.00	16.5
1.00	1.00	0.00	December	10.6	0.65	9.95	13.0	0.65	12.35	12.4
1.03	1.03	0.00	January	10.1	0.65	9.45	13.0	0.65	12.35	10.1
1.05	1.05	0.00	February	10.4	0.65	9.75	12.5	0.65	11.85	9.58
1.00	1.00	0.00	March	11.1	0.65	10.45	13.0	0.65	12.35	10.8
2.65	2.50	0.15	April	24.7	22.50	2.20	18.0	11.00	7.00	32.2
7.58	2.50	5.08	May	76.5	22.50	54.00	125.0	22.50	102.50	90.8
8.98	2.50	6.48	June	105	22.50	82.50	270.0	22.50	247.50	322
4.84	2.50	2.34	July	48.9	22.50	26.40	130.0	22.50	107.50	135
2.94	2.50	0.44	August	23.4	13.70	9.70	50.0	22.50	27.50	46.7
2.29	2.29	0.00	September	18.3	10.55	7.75	35.0	19.50	15.50	38.8

Table 1 - Comparison of estimated streamflow to allowable diversion.

3.i FWP holds instream flow reservations on Bear Creek as shown in Table 1. The frequency in which this reservation is met will increase under the proposed change to instream flow. Other water rights will not be impacted as the use the water rights will be limited by the DNRC change process to historic levels and to assure other existing water rights are not adversely affected.

4. VEGETATION	IMPACT							
Will the proposed action result in?	Unknown	None	Minor	Potentially Significant	Can Impact Be Mitigated	Comment Index		
a. Changes in the diversity, productivity or abundance of plant species (including trees, shrubs, grass, crops, and aquatic plants)?		x						
b. Alteration of a plant community?		x						
c. Adverse effects on any unique, rare, threatened, or endangered species?		X	65					
d. Reduction in acreage or productivity of any agricultural land?		X						
e. Establishment or spread of noxious weeds?	99	X						
f. <u>For P-R/D-J</u> , will the project affect wetlands, or prime and unique farmland?		x						
g. Other:		x			2000			

5. FISH/WILDLIFE	IMPACT							
Will the proposed action result in:	Unknown	None	Minor	Potentially Significant	Can Impact Be Mitigated	Comment Index		
a. Deterioration of critical fish or wildlife habitat?		X						
b. Changes in the diversity or abundance of game animals or bird species?			x			5.b		
c. Changes in the diversity or abundance of nongame species?			x			5.c		

			r
d. Introduction of new species into an area?	X		
e. Creation of a barrier to the migration or movement of animals?	x		
f. Adverse effects on any unique, rare, threatened, or endangered species?	x		5.f
g. Increase in conditions that stress wildlife populations or limit abundance (including harassment, legal or illegal harvest or other human activity)?	x		
h. For P-R/D-J, will the project be performed in any area in which T&E species are present, and will the project affect any T&E species or their habitat? (Also see 5f.)	x		
i. For P-R/D-J, will the project introduce or export any species not presently or historically occurring in the receiving location? (Also see 5d.)	x		

- **5.b** Abundance of game fish, including Yellowstone Cutthroat Trout, is expected to benefit from a more natural flow regime than conditions existing under allowable diversions. The benefits will likely accrue in Big Creek as well as the Yellowstone River.
- 5.c Nongame fish and aquatic species will likely benefit from a more natural flow regime than conditions existing under allowable diversions.
- 5.f Consultation of the Montana Natural Heritage Program website found several plant and animal species of concern occurring in the area with Canada Lynx being listed as Threatened under the Endangered Species Act. However, as monitoring of stream flow would be the only potential source of disturbance to these species, no impact is expected due to the very limited special and temporal scope of the flow monitoring.

B. HUMAN ENVIRONMENT

6. NOISE/ELECTRICAL EFFECTS	IMPACT							
Will the proposed action result in:	Unknown	None	Minor	Potentially Significant	Can Impact Be Mitigated	Comment Index		
a. Increases in existing noise levels?		X						
b. Exposure of people to serve or nuisance noise levels?		X						
c. Creation of electrostatic or electromagnetic effects that could be detrimental to human health or property?		X						
d. Interference with radio or television reception and operation?		X						

7. LAND USE	IMPACT							
Will the proposed action result in:	Unknown	None	Minor	Potentially Significant	Can Impact Be Mitigated	Comment Index		
a. Alteration of or interference with the productivity or profitability of the existing land use of an area?		X						
b. Conflicted with a designated natural area or area of unusual scientific or educational importance?		x						
c. Conflict with any existing land use whose presence would constrain or potentially prohibit the proposed action?		x		50				
d. Adverse effects on or relocation of residences?		X						

8. RISK/HEALTH HAZARDS	IMPACT							
Will the proposed action result in:	Unknown	Unknown None		Potentially Significant	Can Impact Be Mitigated	Comment Index		
a. Risk of an explosion or release of hazardous substances (including, but not limited to oil, pesticides, chemicals, or radiation) in the event of an accident or other forms of disruption?		x						
b. Affect an existing emergency response or emergency evacuation plan, or create a need for a new plan?		x						
c. Creation of any human health hazard or potential hazard?		x						
d. For P-R/D-J, will any chemical toxicants be used? (Also see 8a)	-	x						

9. COMMUNITY IMPACT Will the proposed action result in:	IMPACT							
	Unknown	None	Minor	Potentially Significant	Can Impact Be Mitigated	Comment Index		
a. Alteration of the location, distribution, density, or growth rate of the human population of an area?		X						
b. Alteration of the social structure of a community?		X						
c. Alteration of the level or distribution of employment or community or personal income?		x						
d. Changes in industrial or commercial activity?		X						
e. Increased traffic hazards or effects on existing transportation facilities or patterns of movement of people and goods?		x						

10. PUBLIC SERVICES/TAXES/UTILITIES Will the proposed action result in:	IMPACT							
	Unknown	None	Minor	Potentially Significant	Can Impact Be Mitigated	Comment Index		
a. Will the proposed action have an effect upon or result in a need for new or altered governmental services in any of the following areas: fire or police protection, schools, parks/recreational facilities, roads or other public maintenance, water supply, sewer or septic systems, solid waste disposal, health, or other governmental services? If any, specify:		x						
b. Will the proposed action have an effect upon the local or state tax base and revenues?		X						
c. Will the proposed action result in a need for new facilities or substantial alterations of any of the following utilities: electric power, natural gas, other fuel supply or distribution systems, or communications?		x						
d. Will the proposed action result in increased use of any energy source?		X	71 3,1737 0000					
e. Define projected revenue sources		X						
f. Define projected maintenance costs.			X			10.f		

10.f Expected cost of ongoing streamflow monitoring required under §85-2-436 MCA is \$1,200 annually.

11. AESTHETICS/RECREATION Will the proposed action result in:	IMPACT							
	Unknown	None	Minor	Potentially Significant	Can Impact Be Mitigated	Comment Index		
a. Alteration of any scenic vista or creation of an aesthetically offensive site or effect that is open to public view?			X			11.a		
b. Alteration of the aesthetic character of a community or neighborhood?		x						
c. Alteration of the quality or quantity of recreational/tourism opportunities and settings? (Attach Tourism Report.)		x						
d. For P-R/D-J, will any designated or proposed wild or scenic rivers, trails or wilderness areas be impacted? (Also see 11a, 11c.)		x						

Comments:

11.a Monitoring of streamflow as required under §85-2-436 MCA may require the installation of a staff gages and small stilling wells (2" diameter pipe) in the streams. This would be visible to the public and present a potentially minor alternation of the view in the riparian area in a short reach of Bear and Pine Creeks. This minor impact would not be inconsistent with the historical mining and residential development in the area.

12. CULTURAL/HISTORICAL RESOURCES	IMPACT							
Will the proposed action result in:	Unknown	None	Minor	Potentially Significant	Can Impact Be Mitigated	Comment Index		
a. Destruction or alteration of any site, structure or object of prehistoric historic, or paleontological importance?		x						
b. Physical change that would affect unique cultural values?		X						
c. Effects on existing religious or sacred uses of a site or area?		x				Will A		
d. For P-R/D-J, will the project affect historic or cultural resources? Attach SHPO letter of clearance. (Also see 12.a.)		x				12.d		

SIGNIFICANCE CRITERIA

13. SUMMARY EVALUATION OF SIGNIFICANCE Will the proposed action, considered as a whole:	IMPACT							
	Unknown	None	Minor	Potentially Significant	Can Impact Be Mitigated	Comment Index		
a. Have impacts that are individually limited, but cumulatively considerable? (A project or program may result in impacts on two or more separate resources that create a significant effect when considered together or in total.)		x			8 -			
b. Involve potential risks or adverse effects, which are uncertain but extremely hazardous if they were to occur?		X						
c. Potentially conflict with the substantive requirements of any local, state, or federal law, regulation, standard or formal plan?		x						
d. Establish a precedent or likelihood that future actions with significant environmental impacts will be proposed?	5000	x						
e. Generate substantial debate or controversy about the nature of the impacts that would be created?		X						
f. <u>For P-R/D-J</u> , is the project expected to have organized opposition or generate substantial public controversy? (Also see 13e.)		x	1					
g. <u>For P-R/D-J</u> , list any federal or state permits required.	50000	X						

^{12.}d The project does not involve any ground disturbance or changes to any structures or other man-made features. Therefore, SHPO was not contacted.

PART III. NARRATIVE EVALUATION AND COMMENT

The impacts of the Proposed Action would be minor. With respect to hydrology, the Proposed Action would return the stream to a more natural flow regime, benefiting the aquatic resources that depend on it. The minor aesthetic impacts due to the potential installation of a flow monitoring site would not be out of character for the historic mining and general residential development of the area. Due to the lack of ground disturbance or changes to structures or manmade features, no impacts to cultural or historic resources are expected.

The Proposed Action is not expected to create any cumulative impacts as no other similar projects with similar impacts are planned for the area. No secondary impacts are expected due to the Proposed Action.

PART IV. PUBLIC PARTICIPATION

1. Public involvement:

The public will be notified in the following manner of the opportunity to comment on the proposed action and alternatives:

- Two public notices in the *Livingston Enterprise*
- Public notice on the Fish, Wildlife & Parks web page: http://fwp.mt.gov.

Notice of this environmental assessment will be distributed to the neighboring landowners and interested parties to ensure their knowledge of the proposed project.

This level of public notice and participation is appropriate for a project of this scope with limited impacts.

2. Duration of comment period:

The public comment period will extend for (30) thirty days. Written comments will be accepted until 5:00 p.m., November 3, 2017 and can be mailed or emailed to the addresses below:

Andy Brummond Montana Fish, Wildlife & Parks PO Box 938 Lewistown, MT 59457

Email: abrummond@mt.gov

PART V. EA PREPARATION

1. Based on the significance criteria evaluated in this EA, is an EIS required?

Based on an evaluation of impacts to the physical and human environment under MEPA, this environmental review revealed no significant negative impacts from the Proposed Action. An EIS is not necessary and an environmental assessment is the appropriate level of analysis.

If an EIS is not required, explain why the EA is the appropriate level of analysis for this proposed action.

In determining the significance of the impacts in accordance with ARM 36.12.431 the severity, duration, geographic extent, and frequency of the impact, the probability that the impact would occur or reasonable assurance that the impact would not occur were evaluated. The minor impacts identified would be limited in severity and geographic extent and would be generally beneficial. The growth-inducing or growth-inhibiting aspects of the impact and the importance to the state and to society of the environmental resource or value effected were evaluated. No impacts to growth are expected while the environmental resource would be improved or protected by the Proposed Action. Any precedent that would be set because of an impact of the Proposed Action that would commit FWP to future actions as well as potential conflicts with local, federal, or state laws were evaluated. The Proposed Action would commit FWP to long-term streamflow monitoring as required by §85-2-436 MCA, but the level of monitoring is minor in scope and extent. No potential conflicts with local, state or federal laws are likely.

As this EA found no significant impacts from the Proposed Actions, an EA is the appropriate level of review and an EIS is not required.

2. Person(s) responsible for preparing the EA:

Andy Brummond, Water Conservationist Montana Fish, Wildlife & Parks PO Box 938 Lewistown, MT 59457

Email: abrummond@mt.gov

3. List of agencies or offices consulted during preparation of the EA:

Montana Natural Heritage Program website

